

**AMENDMENTS TO THE CLAIMS**

1. (Amended) A method for acquiring seismic data while drilling a well, comprising:
  - (a) conveying at least one seismic receiver installed in a drill string wherein the receiver is controlled in part by an associated accelerometer that generates signals to control seismic data acquisition;
  - (b) generating coded seismic signals by a seismic source at a surface location;
  - (c) detecting the coded seismic signals with at least one sensor in the at least one seismic receiver at least one location in the wellbore; and
  - (d) computing an arrival time for the detected seismic signals in the seismic receiver.
2. (Amended) The method of claim 1 wherein said computed arrival time is transferred to the a surface processor.
3. (original) The method of claim 1 wherein said computed arrival time is stored in the seismic receiver.
4. (original) The method of claim 1 wherein said coded seismic signals further comprise timed discrete events.
5. (original) The method of claim 1 wherein said coded seismic signals further comprise timed discrete frequencies.

6. (original) The method of claim 1 further comprising a plurality of seismic receivers located along the drill string.
7. (original) The method of claim 1 further comprising:
- i) detecting the seismic signal with at least one sensor located at the surface;  
and
  - ii) storing the signal detected by the at least one surface sensor in a surface processor.
8. (Amended) The method of claim 1 further comprising transferring the signals stored in the seismic receiver to ~~the~~ a surface processor upon removal of the drill string from the wellbore.
9. (Amended) The method of claim 1 further comprising processing, according to programmed instructions, ~~the~~ surface detected signals and the seismic receiver detected signals to generate a seismic map.
10. (Amended) A method for acquiring seismic data while drilling a well, comprising:
- (a) conveying at least one seismic receiver installed in a drill string wherein the receiver is controlled in part by an associated accelerometer that generates signals to control seismic data acquisition;
  - (b) generating coded seismic signals by a seismic source near a surface location;

- (c) detecting the seismic signals with at least one sensor in the at least one seismic receiver at least one location in the wellbore;
- (d) computing, in the seismic receiver, a checkshot transit time for the detected seismic signals; and
- (e) transferring said checkshot transit time to the surface.

11.(original) A method for acquiring seismic data while operating a drill string in wellbore, comprising;

- (a) synchronizing, at the surface, a surface clock in a surface controller with a downhole clock in a seismic receiver;
- (b) programming, at the surface, a processor in the seismic receiver to activate during at least one predetermined time window after a predetermined delay time,
- (c) conveying the seismic receiver in the drill string to a location of interest in the wellbore;
- (d) generating, under control of a surface processor, coded seismic signals by a seismic source near a surface location;
- (e) detecting the generated seismic source signals with a near-source sensor and storing said signals in the surface processor;
- (f) detecting the seismic signals with at least one sensor in the seismic receiver at a location of interest in the wellbore;
- (g) storing the detected seismic signals in the seismic receiver;

- (h) transferring the detected seismic signals from the seismic receiver to the surface processor; and
- (i) processing the near-source signals and the seismic receiver detected signals according to programmed instructions to generate a seismic map.

Claims 12 to 19 (Cancelled)